

**I claim:**

1. A method for identifying a far-end modem type, comprising:  
transmitting a V.8 ANS<sub>am</sub> tone to the far-end modem;  
5 receiving a response signal from the far-end modem in response to the transmitted V.8 ANS<sub>am</sub> tone; and  
determining from the response signal whether the far-end modem is a commercial modem or a secure modem.
- 10 2. The method of claim 1, wherein determining whether the far-end modem is a commercial modem or a secure modem comprises determining whether the far-end modem is a V.series modem or an FSVS modem.
- 15 3. The method of claim 2, wherein determining whether the far-end modem is a commercial modem or a secure modem comprises:  
determining whether the response signal is a V.8 CM tone; and  
if the response signal is a V.8 CM tone, determining that the far-end modem as a V.8 modem.
- 20 4. The method of claim 1, wherein determining whether the far-end modem is a commercial modem or a secure modem comprises:  
determining whether the response signal has a nominal frequency of about 1800 Hz; and  
if the response signal has a nominal frequency of about 1800 Hz,  
25 determining from the response signal whether the far-end modem is a V.32 modem or a secure modem.

5.           The method of claim 4, wherein determining whether the far-end modem is a V.32 modem or a secure modem comprises:  
                    determining whether the response signal includes phase shifts; and  
                    if the response signal does not include phase shifts, determining  
5   that the far-end modem is a V.32 modem.
6.           The method of claim 4, wherein determining whether the far-end modem is a V.32 modem or a secure modem comprises:  
                    determining whether the response signal includes phase shifts; and  
10                if the response signal includes phase shifts, determining that the far-end modem is a secure modem.
7.           The method of claim 1, further comprising:  
                    determining from the response signal, an operational mode of the  
15   far-end modem.
8.           The method of claim 7, wherein determining the operational mode of the far-end modem comprises:  
                    determining whether the response signal includes phase reversals;  
20   and  
                    if the response signal includes phase reversals, determining that the far-end modem is an FSVS modem in alternate mode.
9.           The method of claim 7, wherein determining the operational mode of  
25   the far-end modem comprises:  
                    determining whether the response signal includes a 128 dibit gap;  
                    and  
                    if the response signal includes a 128 dibit gap, determining that the far-end modem is an FSVS modem in half-duplex mode.

10.           The method of claim 7, wherein determining the operational mode of the far-end modem comprises:

                  determining whether the response signal includes phase reversals;

                  determining whether the response signal includes a 128 dibit gap;

5       and

                  if the response signal does not include phase reversals or a 128 dibit gap, determining that the far-end modem is an FSVS modem in interoperable mode.

10    11.           A method for determining a far-end modem type, comprising:  
                  transmitting to the far-end modem a P1800 Hz tone with phase reversals;

                  receiving a response signal from the far-end modem in response to the transmitted P1800 Hz tone; and

15               determining from the response signal whether the far-end modem is a commercial modem or a secure modem.

12.           The method of claim 11, wherein determining from the response signal whether the far-end modem is a commercial modem or a secure modem  
20       comprises:

                  determining whether the far-end modem is a V.32 modem or a secure modem.

13.           The method of claim 12, wherein determining whether the far-end  
25       modem is a V.32 modem or a secure modem comprises:

                  determining whether the response signal includes a V.32 AC; and

                  if the response signal includes a V.32 AC, determining that the far-end modem is a V.32 modem.

14. The method of claim 11, further comprising:  
determining whether the response signal includes an FSVS  
Message A; and  
if the response signal includes an FSVS Message A, determining  
5 that the far-end modem is an FSVS modem in alternate signaling mode.
15. The method of claim 11, further comprising:  
determining whether the response signal includes a V.32 AC;  
determining whether the response signal includes an FSVS  
10 Message A; and  
if the response signal includes neither a V.32 AC nor an FSVS  
Message A, determining that the far-end modem is an FSVS modem in  
interoperable mode.
- 15 16. The method of claim 11, further comprising:  
monitoring an incoming channel for energy at 2100 Hz; and  
if 2100 Hz energy is present in the incoming channel for at least  
about one second, then determining whether the far-end modem is a V.32  
compliant commercial modem or a secure modem in interoperable mode or  
20 alternate mode.
17. A method for determining a far-end modem type, comprising:  
monitoring an incoming channel for the presence of any of 1800 Hz  
energy or 2100 Hz energy;  
25 if 1800 Hz energy is present in the incoming channel for at least  
about one second, then determining that the far-end modem is a secure modem  
in half-duplex mode; and  
if 2100 Hz energy is present in the incoming channel for at least  
about one second, then determining whether the far-end modem is a V.32 modem  
30 or a secure modem in interoperable mode or alternate mode.

18.           The method of claim 17, further comprising:  
                  monitoring the incoming channel for the presence of a V.8 ANS<sub>am</sub>  
tone; and  
                  if a V.8 ANS<sub>am</sub> tone is present in the incoming channel, then  
5       determining that the far-end modem is a V.8 modem.
  
19.           A computer-readable medium having stored thereon computer  
executable instructions for performing a method for identifying a far-end modem  
type, comprising:  
10               transmitting a V.8 ANS<sub>am</sub> tone to the far-end modem;  
                  receiving a response signal from the far-end modem in response to  
the transmitted V.8 ANS<sub>am</sub> tone; and  
                  determining from the response signal whether the far-end modem is  
a commercial modem or a secure modem.  
15
  
20.           A computer-readable medium having stored thereon computer  
executable instructions for performing a method for identifying a far-end modem  
type, comprising:  
                  transmitting to the far-end modem a P1800 Hz tone with phase  
20       reversals;  
                  receiving a response signal from the far-end modem in response to  
the transmitted P1800 Hz tone; and  
                  determining from the response signal whether the far-end modem is  
a commercial modem or a secure modem.